

F21S

NON-PORTABLE LIGHTING DEVICES OR SYSTEMS THEREOF (burners [F23D](#))

Definition statement

This subclass covers:

Devices or systems intended for fixed installation, e.g. vehicle lighting, or for use at a permanent location, e.g. free-standing floor- or table lamps.

References relevant to classification in this subclass

This subclass does not cover:

LED lamps	F21K
Candle holders	F21V 35/00
Burners	F23D

Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of lighting devices or systems or structural combination of lighting devices with other articles not otherwise provided for	F21V 33/00
Electric light sources per se	H01J , H01K , H05B

Special rules of classification within this subclass

- "Invention information" is identified with ECLA symbols, whereas "additional information" is identified with Indexing Code symbols, e.g. additional information of the kind of light source used in the lighting device is identified with [F21Y](#), e.g. additional information of some applications is identified with [F21W](#)
- Non-electric lighting devices or systems are classified in groups [F21S 11/00](#)-[F21S 15/00](#) only if a special adaptation related to the use of a non-electric light source is of interest

Synonyms and Keywords

LED	Light Emitting Diode
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F21S 2/00

Systems of lighting devices, not provided for in main groups [F21S 4/00](#) to [F21S 10/00](#) or [F21S 19/00](#), e.g. of modular construction

Informative references

Attention is drawn to the following places, which may be of interest for search:

Lighting devices or systems using a string or strip of light sources	F21S 4/00
Lighting devices intended to be free standing	F21S 6/00

F21S 2/005

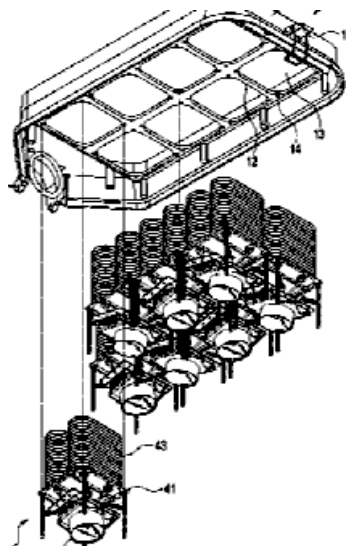
{of modular construction}

Definition statement

This subgroup covers:

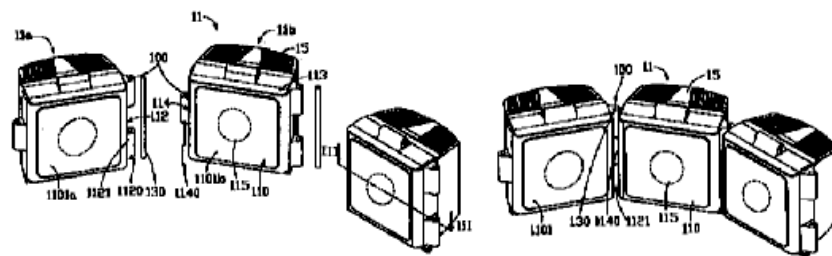
- System of identical lighting modules forming a lighting device with a plurality of light sources

Example: US2008080188



Example: EP2075505

Articulated light source assembly



Glossary of terms

In this subgroup, the following terms (or expressions) are used with the meaning indicated:

Module	A self-contained assembly of light emitting devices that can be installed as a unit, for insertion in a housing in order to form a lighting device, e.g. for street lighting
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F21S 4/10

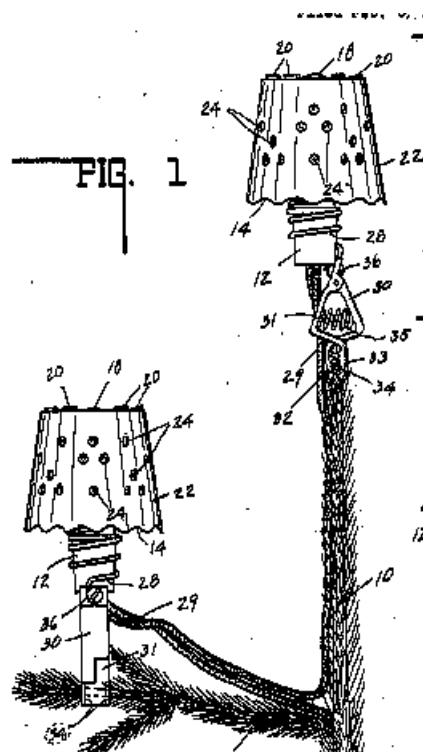
with light sources attached to loose electric cables, e.g. Christmas tree lights

Definition statement

This subgroup covers:

- String of lights for decorative purposes, e.g. for Christmas trees
- String of lights for illuminating working places
- String of lights interconnected by loose cables adapted for Christmas trees

Example: US1972687



Informative references

Attention is drawn to the following places, which may be of interest for search:

Christmas tree decorations	A47G 33/08
String rigidly mounted on a frame or included in a resin	F21S 4/20
Lamp holder for string of lights interconnected by loose cables	F21V 19/0005

Special rules of classification within this group

- Luminous garlands for Christmas trees, these documents should be given the Indexing Code [F21W 2121/04](#).

F21S 4/20

with light sources held by or within elongate supports

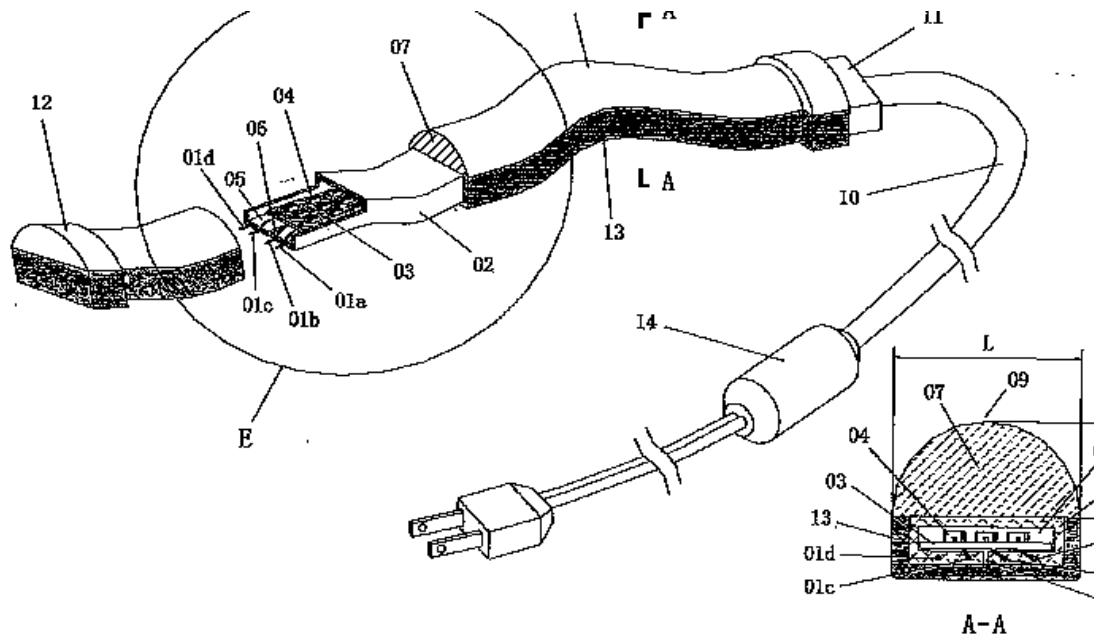
Definition statement

This subgroup covers:

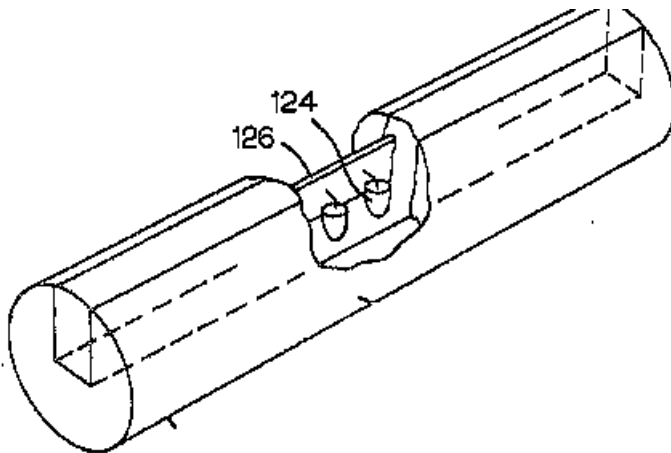
- Strip of lights for display case in shops
- Strip of lights for handrail or balustrade
- Strip of lights embedded in a flexible resin or housed within a flexible or rigid transparent hose, e.g. illuminated rope

- Flexible LED lighting rod device
- Decorative frames for holding string of light sources
- Strip of lights for under-shelf lighting

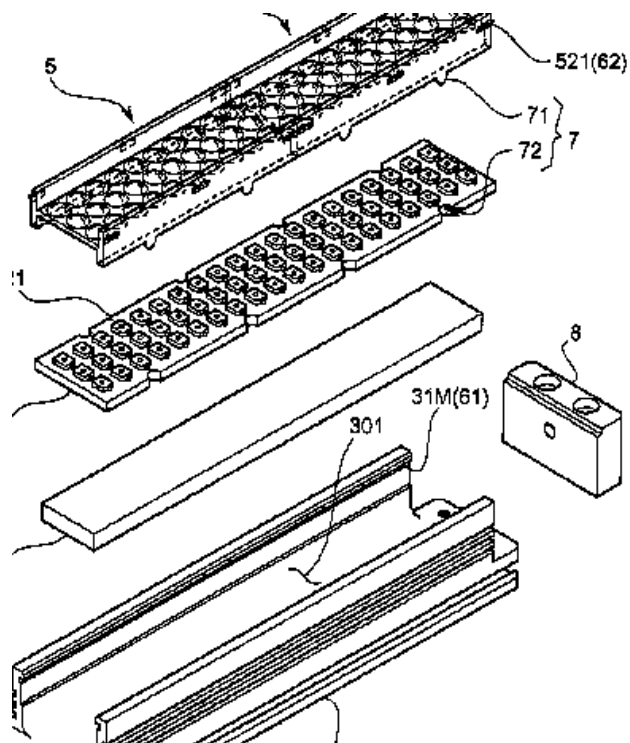
Example: WO2006081707 - Flexible strip with multiple light emitting diodes



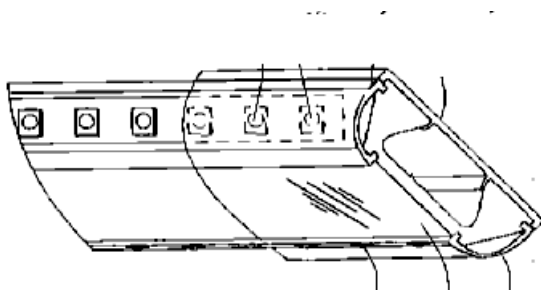
Example: WO2004070262 - Flexible illuminated device for simulating neon lighting



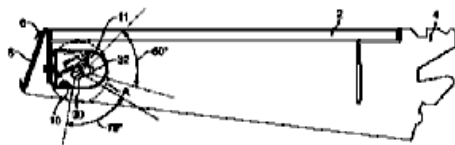
Example: EP2306068



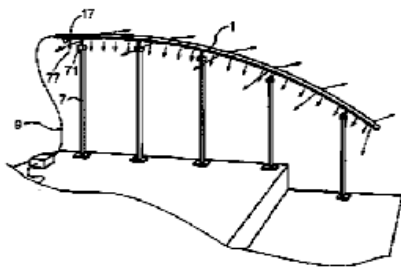
Example: WO2006067777 - Display cabinet illumination



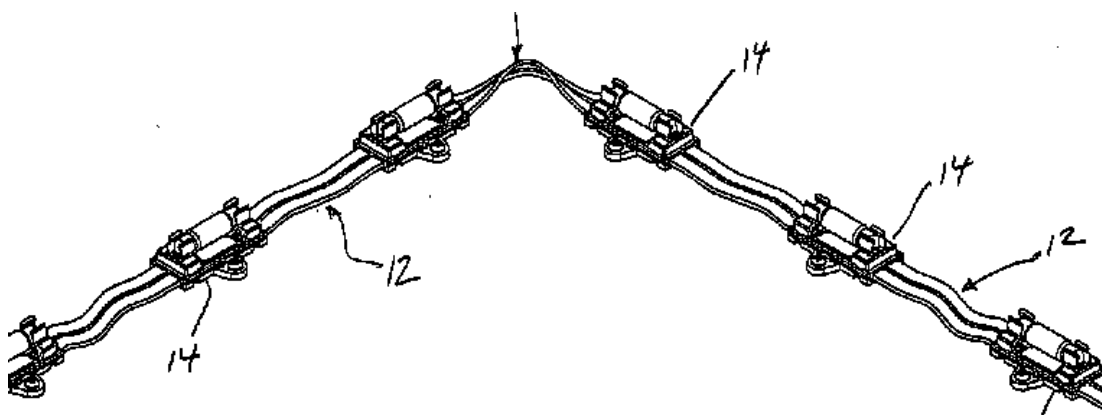
Ex.: US2011044030 - Under-shelf lighting system



Example: WO2011055488 - Strip of lights for handrail illumination



Example: US2008112169



References relevant to classification in this group

This subgroup does not cover:

- Elongated LED (Light Emitting Diode) lamps with connectors for retrofitting	F21K 9/17
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Lighting devices for show cases or show cabinets	A47F 3/001
Stairways, ramps; Balustrades; Handrails	E04F 11/00
Channel letter lighting system	G09F 13/0404
Structural combinations of lighting devices with other articles, not otherwise provided fo	F21V 33/00

Special rules of classification within this group

- Strip of lights for display case in shops are classified with the appropriate Indexing Code, [F21W 2131/405](#) or ([F21W 2131/405](#) and [F21W 2131/305](#)) and forwarded for classification in [A47F 3/001](#).

Sometimes also classified in [F21V 33/0012](#) if attachable to a shelf.
Forward for classification in [F25D 27/00](#) if intended for refrigerated display case.

F21S 4/28

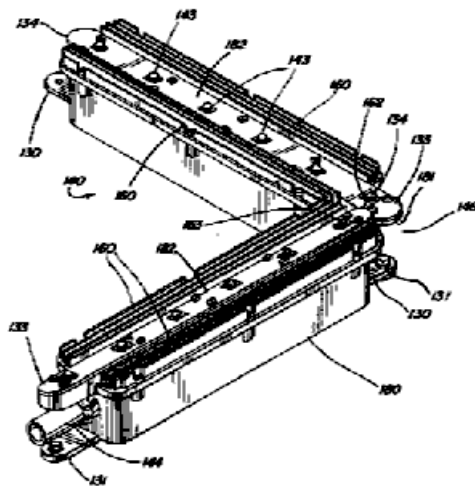
rigid, e.g. LED bars

Definition statement

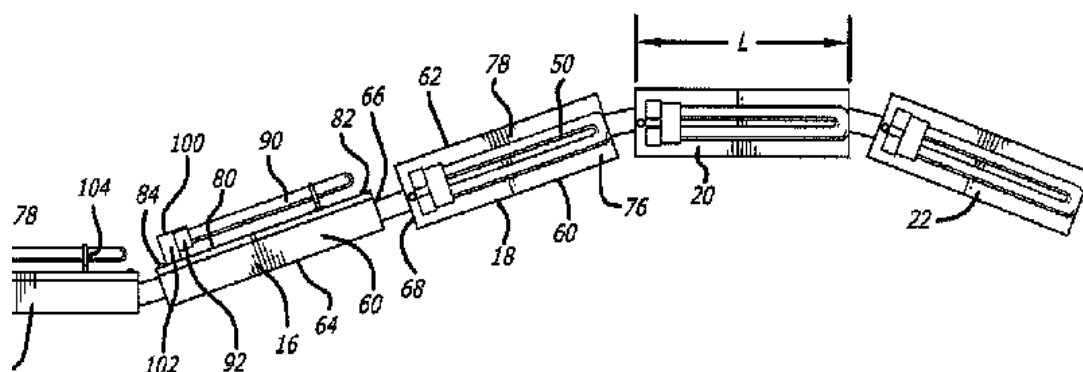
This subgroup covers:

- Strips of lights, the lights being of elongated shapes
- Strips of elongated lighting devices

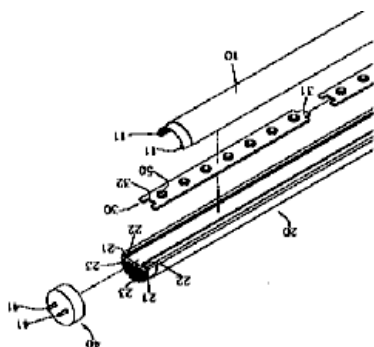
Example: US2009225546



Example: US2003081413



Example: DE202010008114U - Printed circuit board with diodes connected end-to-end



Example: EP1847760



Informative references

Attention is drawn to the following places, which may be of interest for search:

Systems of lighting devices, e.g. of modular construction	F21S 2/00
Supporting, suspending, or attaching arrangements for lighting devices for several lighting devices in an end-to-end arrangement	F21V 21/005

Special rules of classification within this group

In this group, it is desirable to add the Indexing Codes of [F21Y](#)

F21S 6/00

Lighting devices intended to be free-standing ([F21S 9/00](#), [F21S 10/00](#), {[F21S 13/12](#)} take precedence {lighting devices specially adapted to be transported from place to place, e.g. lighting devices carried on wheeled supports [F21L](#); details of supports for lighting devices [F21V 21/00](#)})

References relevant to classification in this group

This group does not cover:

Electric lighting devices carried on wheeled supports without a self-contained power source	F21L 14/04
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply	F21S 9/00
Lighting devices or systems producing a varying lighting effect	F21S 10/00
Non-electric lighting devices or systems employing a point-like light source; Non-electric lighting devices or systems employing a light source of unspecified shape; Devices intended to be free-standing	F21S 13/12
Shades for light sources	F21V 1/00

F21S 6/001

{being candle-shaped (with varying lighting effect of simulating flames [F21S 10/04](#); string of light sources [F21S 4/00](#))}

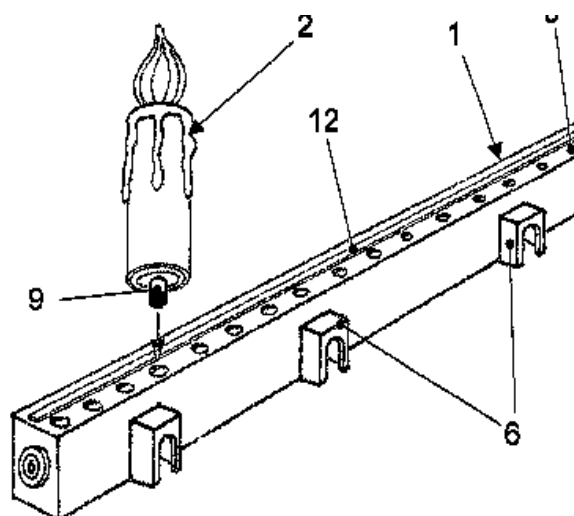
Definition statement

This subgroup covers:

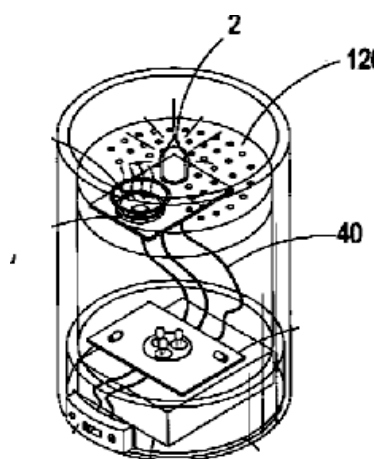
- individual electric candle lamps
- Single battery powered candle lamps

Warning: this group includes also lighting devices for fixed installation and electric lamps simulating candles and forming strips of lamps . Reorganisation is planned

Example: DE202009005470U



Example: US2010207538 - Single Candle Lamp



Informative references

Attention is drawn to the following places, which may be of interest for search:

- Christmas tree decorations	A47G 33/08
Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply	F21S 9/00
Lighting devices intended for fixed installation and decorative purposes	F21S 8/00 in combination with F21W 2121/00
Lighting devices or systems producing a varying lighting effect changing colour or simulating flames	F21S 10/00 , F21S 10/02 , F21S 10/04
Candle holders	F21V 35/00

Special rules of classification within this group

In this group, it is desirable to add the Indexing Code [F21W 2121/00](#) when used for particular applications or related to systems for decorative purposes

F21S 8/00

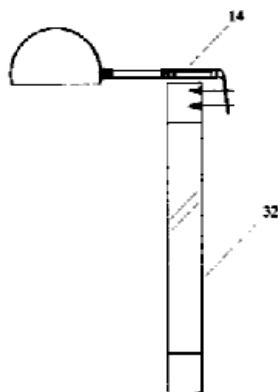
Lighting devices intended for fixed installation ([F21S 9/00](#), [F21S 10/00](#) take precedence; using a string or strip of light sources [F21S 4/00](#))

Definition statement

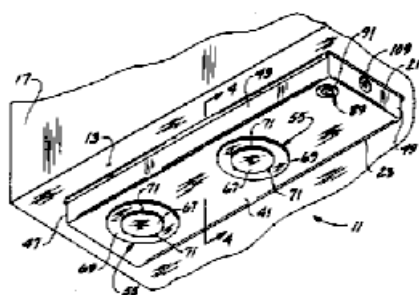
This group covers:

- for example desk lamps which are considered being a not frequently moved lighting device

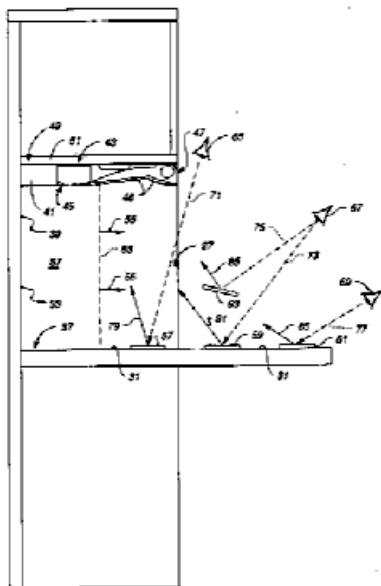
Example: US5934787 - Wall or picture frame mounted illuminating device



Example: US5769529 - Under-cabinet light fixture

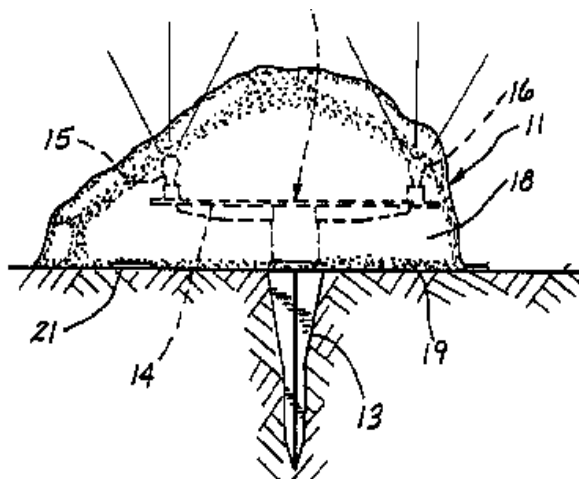


Example: US5530628 - Task light



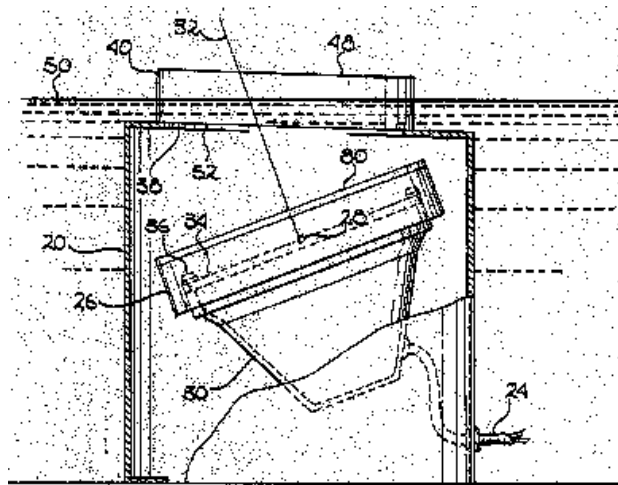
- Lighting devices for lighting inside a domestic oven
- Lighting devices for lighting the interior of a closed vessel, e.g. a pressure tank
- Lighting devices for decorative purposes

Example: US5803594 - A stone-like shell



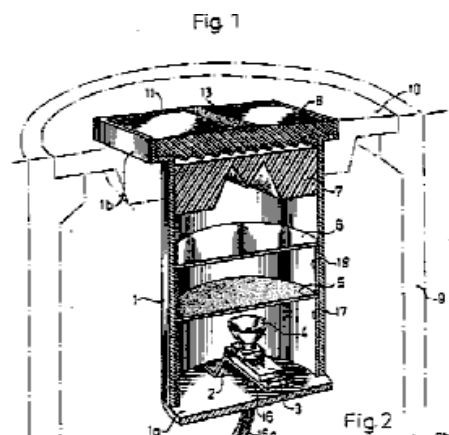
- Lighting devices for fountain lighting
- Lighting devices for swimming pool lighting

Example: US4661893 - Underwater lighting system

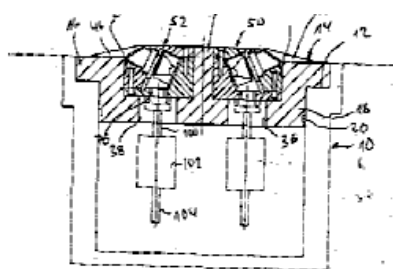


- Lighting devices for aquarium
- Lighting devices for signalling other than those adapted to be mounted on a vehicle
- Marker lights, e.g. navigation lights, airfield runway lights or beacon lights

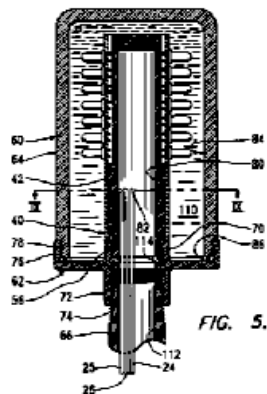
Example: WO8800157 - An airfield marker light ([B64F 1/20](#))



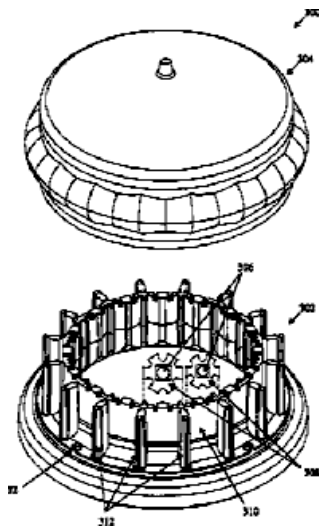
Example: DE20309405U - Underground corridor lights for airport runways.



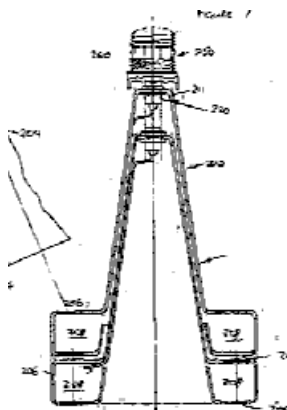
Example: US5890794



Example: WO2011029127 - Lighting device for guiding a vessel or aircraft

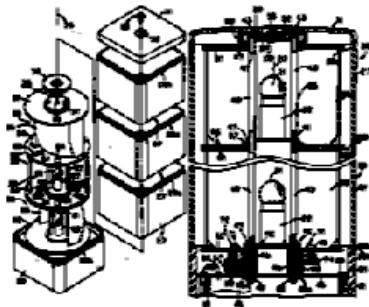


Example: EP0330392 - Illuminated warning cone



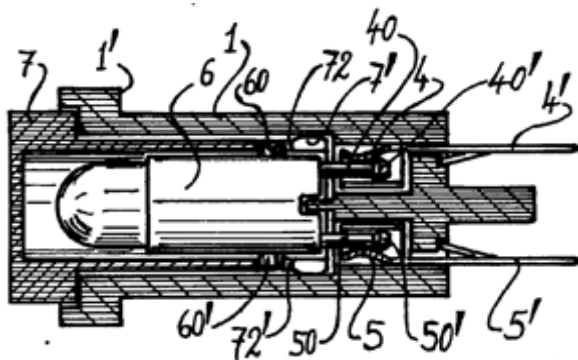
- Traffic lights; Pillar shaped lights; Lights arranged on top of each other

Example: JP6314509 - Signalling lights on top of each other

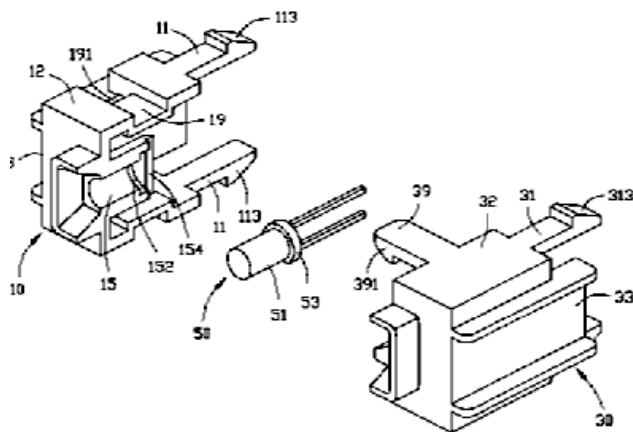


- Indicator lights, e.g. for mounting on control panels or dashboards

Example: Indicator

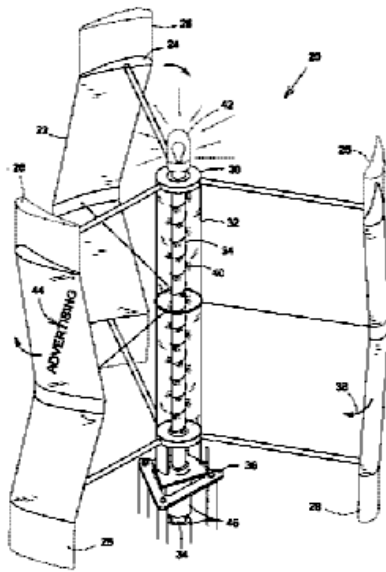


Example: US2008135690 - Mounting apparatus for indicator device

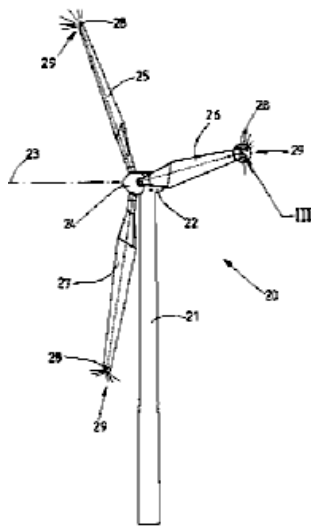


- Lamps on antennas or powerlines or aerial markers

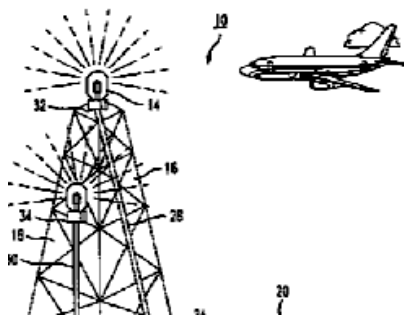
Example: US2009086465 - Wind-powered generator and blade therefor



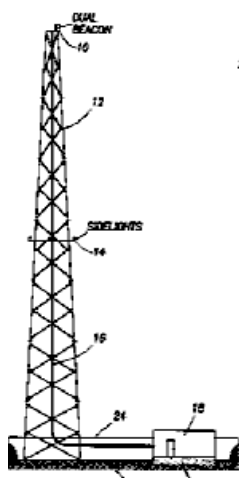
Example: DE10348994 - Wind powered generator with aircraft warning lights



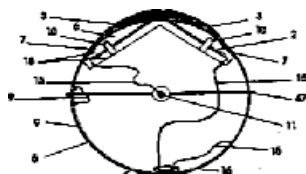
Example: US6762695 - Radio tower lighting system



Example: US6070994 - Dual beacon for marking obstructions

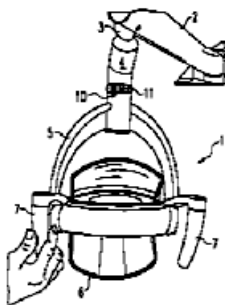


Example: US5361018 - Intermediate voltage cable marker with enhanced conspicuity



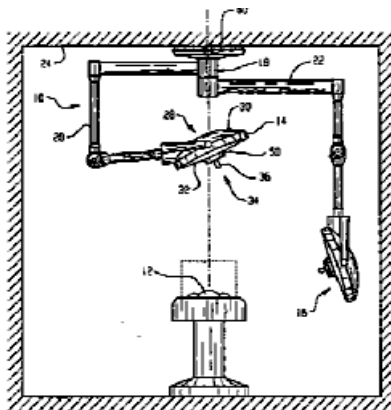
- Lighting devices for illuminating an indoor working place
- Lighting devices for dentistry

Example: DE102008023840 - Dental lamp



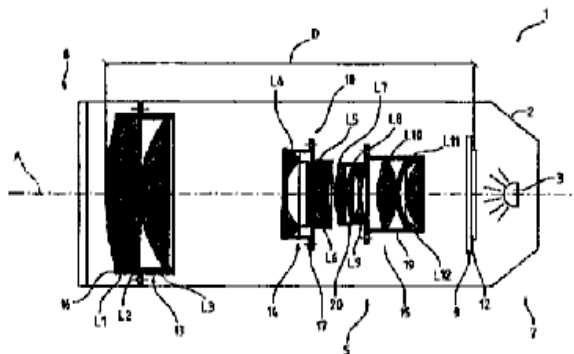
- Lighting devices for medicine or surgery, i.e. fixed installation lighting apparatus in surgery rooms to light the surgeon's working places

Example: WO03072995 - Surgical lighting system

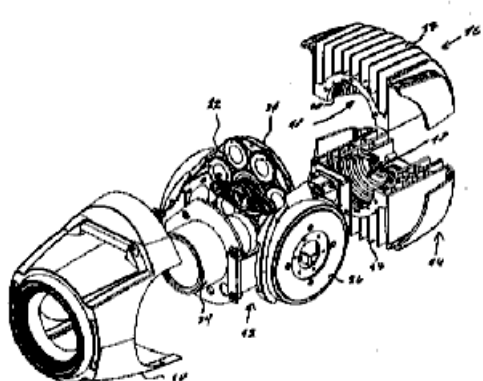


- Lighting devices for stage, circus, studio, theatre or indoor arena lighting

Example: US2010321940 - Washlight stage lighting fixture

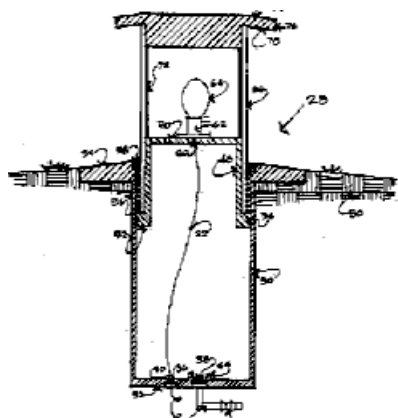


Example: EP1898145 - Moving head projector for use in exhibitions, theatres or shops

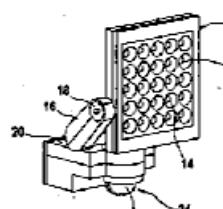


- Lighting devices for outdoor lighting, e.g. of tunnels, building, gardens, arenas, sport fields or gas stations

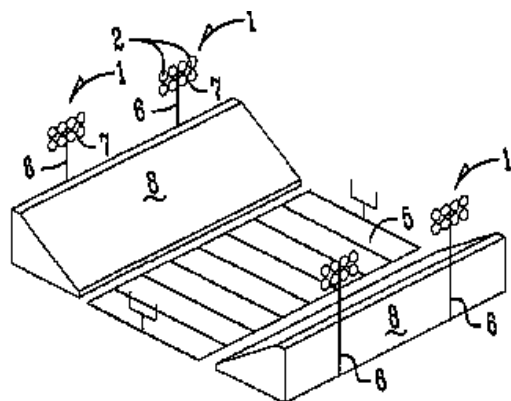
Example: US5683176 - Garden lighting device attachable to ground



Example: EP2107295 - Wall lighting device with motion detector



Example: US2006187663 - Sports lighting fixture



- Lighting devices for lighting roadways or streets not provided in [F21S 8/06](#), [F21S 8/08](#), i.e. lighting devices for which the supports of the lighting devices are not disclosed

References relevant to classification in this group

This group does not cover:

- When related to closely lighting a limited area:

Illuminating devices for liquid crystal display	G02F1/13357
Signs, boards or panels, illuminated from behind the insignia	G09F 13/04

- When related to lighting devices for fountain lighting or lighting devices for swimming pool lighting:

Structural combinations of lighting devices with sanitary equipments, e.g. shower head, water tap	F21V 33/004
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- When related to lighting devices for signalling other than those adapted to be mounted on a vehicle

Arrangements or adaptations of optical signalling or lighting devices, the devices being mounted on a shaft and primarily intended to indicate the vehicle	B60Q 1/2657
Triangle warning arrangements	B60Q 7/00
Road hazard warning devices, e.g. for safety barrier systems	E01F 9/00

- When related to lighting devices for stage, circus, studio, theatre or indoor arena lighting

Details of colour television system; Projection devices for colour picture display	H04N 9/31
Apparatus or arrangements for projecting photographs; Projectors or projection-type viewers	G03B 21/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Systems of lighting devices, e.g. of modular construction	F21S 2/00
Lighting devices or systems using a string or strip of light sources	F21S 4/00
Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply	F21S 9/00
Lighting devices or systems producing a varying lighting effect	F21S 10/00
Details of lighting devices	F21V

- When related to closely lighting a limited area:

Lighting devices intended to be free standing, e.g. desk lamps	F21S 6/00
Structural combination of lighting devices with furniture	F21V 33/0012

- When related to light inside a domestic oven:

Bakers'ovens; Means for illuminating ovens	A21B 3/10
Illumination for oven cavities	F24C 15/008
Aspects relating to lighting devices in the microwave cavity	H05B 6/6444

- When related to lighting devices for decorative purposes

Christmas tree decorations	A47G 33/08
Lighting devices or systems producing a varying lighting effect	F21S 10/00
Designs or pictures characterised by special or unusual light effects	B44F 1/00
String of lamps connected with electric wires	F21S 4/10
Electric candle lights	F21S 6/001

- When related to lighting devices for fountain lighting or lighting devices for swimming pool lighting:

Spaying apparatus	B05B
Lighting devices or systems producing a varying lighting effect using liquids, e.g. water	F21S 10/002
Water projection screens	G03B 21/30

- When marker lights, e.g. navigation lights, airfield runway lights or beacon lights

Light signals for guiding railway	B61L 5/18
Arrangement of optical beacons for ground or aircraft-carrier-deck-installations	B64F 1/20

Arrangement of road signs or traffic signals three dimensional free-standing devices, e.g. traffic cones, foldable or inflatable devices	E01F 9/654
Illuminated marker posts or bollards	E01F 9/617

- When traffic lights or pillar shaped lights or lights arranged on top of each other

Illuminated marker posts or bollards	E01F 9/617
Traffic light control systems for road vehicles	G08G 1/095

- When indicator lights, e.g. for mounting on control panels or dashboards

Dashboards	B60K 37/00
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- When lamps on antennas or powerlines or aerial markers

Wind turbines	F03D 11/00
Means for the lighting or illuminating of aerials, e.g. for purpose of warning	H01Q 1/06

- When lighting devices for dentistry

Instruments, implements or accessories for surgery or diagnosis; Devices for illuminating a surgical field	A61B 90/30
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- When lighting devices for medicine or surgery

Devices for illuminating a surgical field	A61B 90/30
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- When related to lighting devices for stage, circus, studio, theatre or indoor arena lighting

Lighting devices or systems producing a varying lighting effect	F21S 10/00
Details of lighting devices for changing the characteristics or distribution of the light emitted by adjustment of parts	F21V 14/00

Adjustable mounting of a lighting device	F21V 21/14
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Special rules of classification within this group

In this group, it is desirable to add the Indexing Codes of subclasses [F21W 2131/00](#) and/or classification in [F21V 33/00](#) when applicable,

- When related to closely lighting a limited area like a working place: [F21W 2131/402](#), lighting a painting: [F21W 2131/304](#)
- When related to lighting devices for lighting inside a domestic oven it is desirable to add the Indexing Codes of [F21W 2131/307](#) - This subject-matter should not to be classified in [F21V 33/0044](#)
- When related to lighting devices for lighting the interior of a closed vessel, e.g. a pressure tank it is desirable to add the Indexing Code [F21W 2131/411](#)
- When related to lighting devices for decorative purposes it is desirable to add the Indexing Codes of [F21W 2121/00](#)
- When related to lighting devices for fountain lighting it is desirable to add the Indexing Code [F21W 2121/02](#) - Documents classified here usually do not get classification in [F21S 8/033](#) , [F21S 8/02](#) or [F21S 8/04](#)
- When related to lighting devices for swimming pool lighting it is desirable to add the Indexing Code of [F21W 2131/401](#) - Documents classified here usually do not get classification in [F21S 8/033](#) , [F21S 8/02](#) or [F21S 8/04](#)

When related to lighting devices for aquarium it is desirable to add the Indexing Code of [F21W 2131/308](#) - Documents classified here usually do not get classification in [F21S 8/033](#) , [F21S 8/02](#) or [F21S 8/04](#)

When related to lighting devices for signalling other than those adapted to be mounted on a vehicle it is desirable to add the Indexing Code of [F21W 2111/00](#)

- When marker lights, e.g. navigation lights, airfield runway lights or beacon lights

it is desirable to add the Indexing Code of [F21W 2111/06](#) or [F21W 2111/02](#)

- When traffic lights or pillar shaped lights or Lights arranged on top of each other it is desirable to add the Indexing Code of [F21W 2111/02](#)
- When indicator lights, e.g. for mounting on control panels or dashboards it is desirable to add the Indexing Code of [F21W 2111/00](#)
- When lamps on antennas or powerlines or aerial markers it is desirable to add the Indexing Code [F21W 2111/00](#) or [F21W 2111/06](#)
- When lighting devices for illuminating an indoor working place it is desirable to add the Indexing Code [F21W 2131/402](#)

- When lighting devices for dentistry it is desirable to add the Indexing Code [F21W 2131/202](#)
- When lighting devices for medicine or surgery it is desirable to add the Indexing Code [F21W 2131/205](#)
- When lighting devices for stage, circus, studio, theatre or indoor arena lighting it is desirable to add the Indexing Code [F21W 2131/406](#) - When the device uses variable lighting effect a class should be given also in [F21S 10/00](#)

When lighting devices for outdoor lighting, e.g. of tunnels, building, gardens, arenas, sport fields or gas stations it is desirable to add the Indexing Code of [F21W 2131/10](#)

When lighting devices for lighting roadways or streets not provided in [F21S 8/06](#), [F21S 8/08](#) it is desirable to add the Indexing Code [F21W 2131/103](#)

F21S 8/003

{Searchlights, i.e. outdoor lighting device producing powerful beam of parallel rays, e.g. for military or attraction purposes (searchlights mounted on a vehicle [B60Q 1/24](#))}

References relevant to classification in this group

This subgroup does not cover:

Searchlight mounted on a vehicle	B60Q 1/24
Projector or searchlight on land vehicles	B60P 3/18

Informative references

Attention is drawn to the following places, which may be of interest for search:

Investigating or analysing materials by the use of optical means; Specially adapted optical and illumination features	G01N 21/8806
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F21S 8/006

{Solar simulators, e.g. for testing photovoltaic panels}

Informative references

Attention is drawn to the following places, which may be of interest for search:

Arrangements of light sources specially adapted for photometry; standard sources, also using luminescent or radioactive material-	G01J 1/08
Arrangements for testing electric properties of solar cells.	G01R31/26B2

F21S 8/02

of recess-mounted type, e.g. downlighters ([F21S 8/10](#) takes precedence; {details of recessed bases [F21V 21/04](#)})

References relevant to classification in this group

This subgroup does not cover:

Lighting devices intended for fixed installation specially adapted for vehicles	F21S 48/00
Recessed wall lighting device for swimming pools	F21W 2131/401

Informative references

Attention is drawn to the following places, which may be of interest for search:

Ceilings with means for hanging lighting fixtures or other appliances to the framework of the ceiling	E04B 9/006
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F21S 8/031

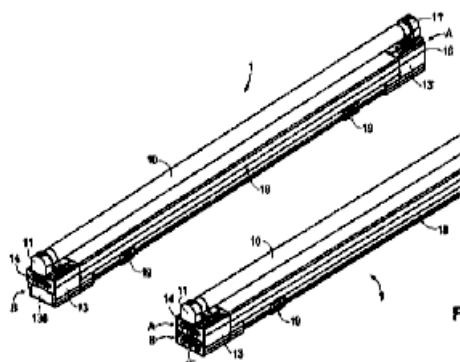
{the device consisting essentially only of a light source holder with an exposed light source, e.g. a fluorescent tube}

Definition statement

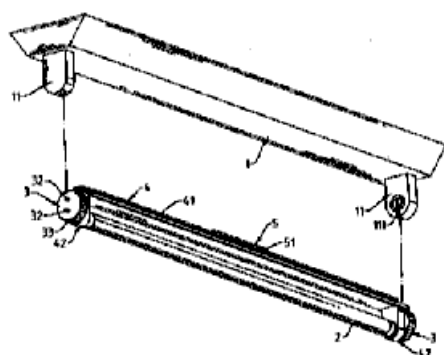
This subgroup covers:

- Elongated light source holding device for which the light source is mounted externally

Example: EP1433997



Example: US20110081806



Informative references

Attention is drawn to the following places, which may be of interest for search:

Fastening of light sources or lamp holders of straight tubular light sources, e.g. straight fluorescent tubes	F21V 19/008
Line connectors; current collectors	H01R

Special rules of classification within this group

In this group, it is desirable to add the Indexing Code [F21Y 2103/00](#)

F21S 8/032

{the surface being a floor or like ground surface, e.g. pavement}

References relevant to classification in this group

This subgroup does not cover:

Free standing lamps on a floor	F21S 6/00
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Fixed lighting devices of recess mounted types in a floor	F21S 8/022
Illuminated carpets, stairs	F21V 33/006

F21S 8/035

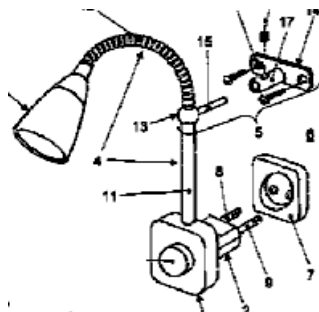
{by means of plugging into a wall outlet, e.g. night light}

Definition statement

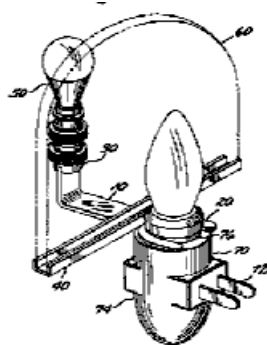
This subgroup covers:

Lighting devices which are intended to be plugged into a power outlet

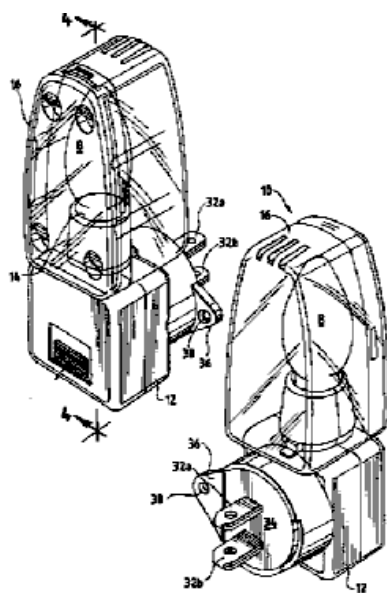
Example: DE202009014387U



Example: US5887802 - Night light



Example: US5727953



Informative references

Attention is drawn to the following places, which may be of interest for search:

Apparatus for deodorisation of air using gaseous or vaporous substances using substances evaporated in the air by heating or combustion	A61L 9/03
Coupling devices in which a holder is adapted for supporting apparatus to which its counterpart is attached	H01R 33/00
Structural association of built-in electrical components with a built-in light source	H01R 13/717

Special rules of classification within this group

These plugs in devices are generally not to be classified in [F21V 21/002](#) nor [F21V 21/08](#)

F21S 8/037

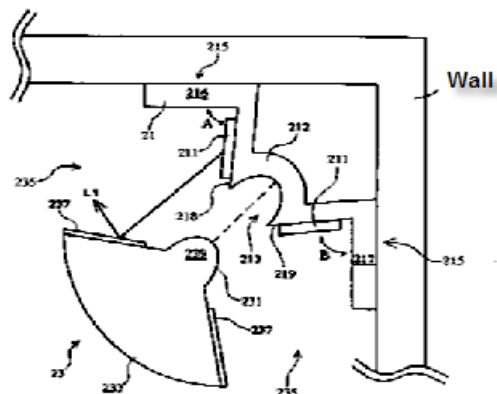
{for mounting in a corner, i.e. between adjacent walls or wall and ceiling}

Definition statement

This subgroup covers:

- Corner lighting device

Example: US2008205054 - Indirect wall mounted lighting apparatus



F21S 8/04

intended only for mounting on a ceiling or the like overhead structures
([F21S 8/02](#) takes precedence; {details of ceiling bases [F21V 21/03](#)})

References relevant to classification in this group

This subgroup does not cover:

Lighting device essentially made of an elongated section for suspending at least one linear light source	F21S 8/033
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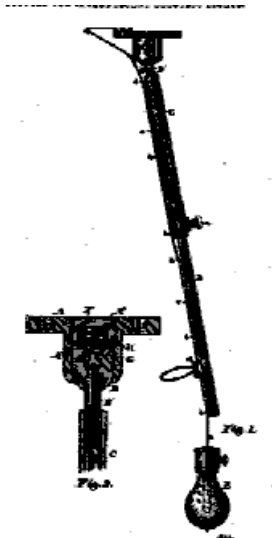
F21S 8/06

by suspension

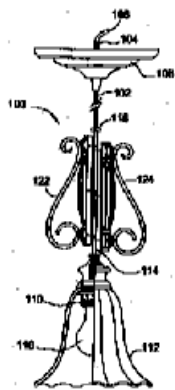
Definition statement

This subgroup covers:

Example: US394680



Example: US2011101181 - Hanging light fixture



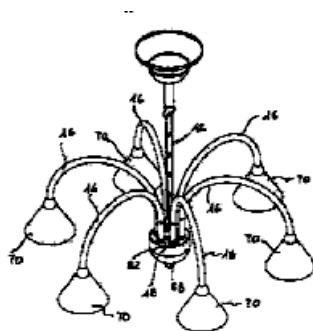
F21S 8/065

{multi-branched, e.g. a chandelier}

Definition statement

This subgroup covers:

Example: EP2357394 - Ceiling chandelier



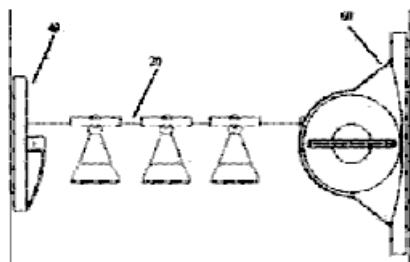
F21S 8/068

{from a stretched wire}

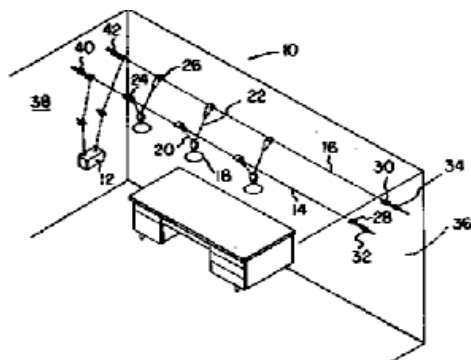
Definition statement

This subgroup covers:

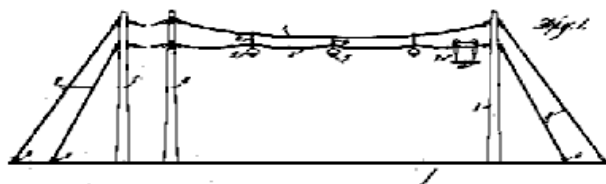
Example: US2008175011 - A suspended cable lighting system



Example: US5158360



Example: US3033978 - Catenary lighting apparatus



Informative references

Attention is drawn to the following places, which may be of interest for search:

Details of lighting devices suspended from a cable or suspension lines	F21V 21/008
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F21S 8/08

with a standard {([F21S 6/00](#) takes precedence)}

References relevant to classification in this group

This subgroup does not cover:

Free standing lighting devices with a lamp housing distant from the floor or the ground via a support, e.g. standing lamp for ambient light	F21S 6/005
Spring-loaded poles fixed at both ends	F21V 21/13

Informative references

Attention is drawn to the following places, which may be of interest for search:

Lighting device from a stretched wire	F21S 8/068
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Special rules of classification within this group

In this group, it is desirable to add the Indexing Codes of [F21W 2131/10](#) whenever applicable

Synonyms and Keywords

Standard	Mast (De, En), pole (En), pillar (En), stem (En), Pfosten (De), Pfahl (De), Pfeiler (De), Stenge (De), mât (Fr), pylone (Fr), pieu (Fr), jalon (Fr), tuteur (Fr), pilier (Fr), poteau (Fr), tige (Fr)
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F21S 8/10**specially adapted for vehicles****Special rules of classification within this group**

This group must not be used. Documents have to be classified in the group of [F21S 48/00](#) instead.

F21S 9/00**Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply****Informative references**

Attention is drawn to the following places, which may be of interest for search:

- Electric portable lighting devices with self-contained electric batteries or cells	F21L 4/00
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F21S 9/02**the power supply being a battery or accumulator****Informative references**

Attention is drawn to the following places, which may be of interest for search:

- Alarm systems using visible light sources	G08B 5/36
Alarm systems using flashing light	G08B 5/38
Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries	H02J 7/00
Batteries forming a whole with or incorporated in or fixed to the electronic appliance	H01M 2/1055

F21S 9/03**rechargeable by exposure to light****Definition statement**

This subgroup covers:

- Lighting devices comprising solar cells and rechargeable batteries or capacitors
- Lighting devices using solar cells to get electric power supply from an artificial light, i.e. not using solar energy

- Lighting devices having no power supply or accumulator but directly powered by the energy produced by solar cells, i.e. device not using electricity storing means

Relationship between large subject matter areas

- Circuit arrangements for charging or depolarising batteries or for supplying loads from batteries are not covered by this group, they could be found in [H02J 7/00](#)

Special rules of classification within this group

- Contrary to the title, documents having no power supply nor accumulator but directly powered by the electric energy produced by solar cells, i.e. device not using electricity storing means, are classified in this group

Synonyms and Keywords

Solar cell	Photovoltaic cell (En), cellule photovoltaïque (Fr), panneau solaire (Fr), Solarpaneel (De)
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F21S 9/04

the power supply being a generator

Definition statement

This subgroup covers:

- Lighting devices with power supply being a wind turbine
- Lighting devices with power supply being manual actuators being an electric generator

Informative references

Attention is drawn to the following places, which may be of interest for search:

- Dynamo-electric machine	H02K
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F21S 10/00

Lighting devices or systems producing a varying lighting effect

Informative references

Attention is drawn to the following places, which may be of interest for search:

Christmas tree decorations	A47G 33/08
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Designs or pictures characterised by special or unusual light effects	B44F 1/00
Decorative lighting devices	F21W 2121/00
Changing the characteristics or distribution of the light emitted by adjustment of parts	F21V 14/00

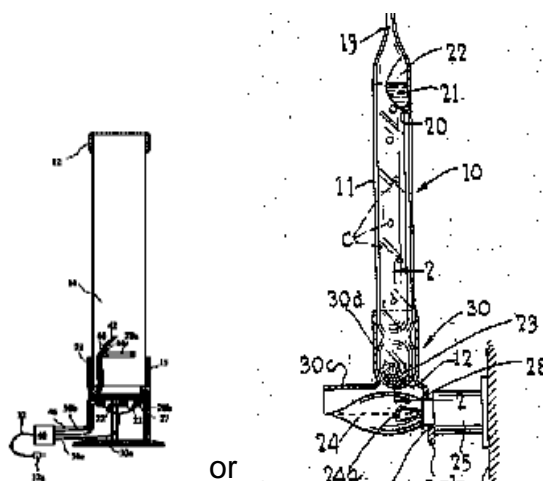
F21S 10/002

{using liquids, e.g. water ([F21W 2121/02](#) takes precedence)}

Definition statement

This subgroup covers:

Example: US2011050104 or US2378934 - Decorative lamp with a lighted water container/reservoir.



References relevant to classification in this group

This subgroup does not cover:

Decorative lighting devices intended for fixed installation for fountain lighting; for swimming pool lighting	F21W 2121/02 , F21W 2131/401
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Lighting devices structurally combined with water taps or shower heads	F21V 33/004
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Special rules of classification within this group

- In this group, it is desirable to add the Indexing Code of [F21W 2121/00](#), when the varying lighting effect is decorative

F21S 10/005

{using light guides (light guides specially adapted for lighting devices [G02B 6/0001](#))}

References relevant to classification in this group

This subgroup does not cover:

Light guides specially adapted for lighting devices	G02B 6/0001
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F21S 10/02

changing colors {([F21S 10/002](#) to [F21S 10/007](#), [F21S 10/04](#) take precedence)}

References relevant to classification in this group

This subgroup does not cover:

Lighting devices or systems producing a varying lighting effect using liquids	F21S 10/002
Lighting devices or systems producing a varying lighting effect using rotating disks	F21S 10/007
Lighting devices or systems producing a varying lighting effect simulating flames	F21S 10/04

Informative references

Attention is drawn to the following places, which may be of interest for search:

Light filter for producing coloured light	F21V 9/08
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F21S 10/04

simulating flames

Relationship between large subject matter areas

[F24C 7/004](#): Stoves or ranges heated by electrical energy (electric heating elements or arrangements [H05B](#)); Stoves ([F24C 7/02](#) to [F24C 7/10](#) take precedence) simulating flames

Auxiliaries for producing special effects on stages, or in circuses or arenas are classified in [A63J 5/023](#), but illuminating arrangements therefor are classified in [F21W 2131/406](#) - [A63J 5/02](#) further covers arrangements for making stage effects and auxiliary stage appliances for making fire and flame simulations

Informative references

Attention is drawn to the following places, which may be of interest for search:

- Electric candle lamps	F21S 6/001
- Stoves simulating flames	F24C 7/004

Special rules of classification within this group

In this group, it is desirable to add the Indexing Code of [F21W 2121/00](#)

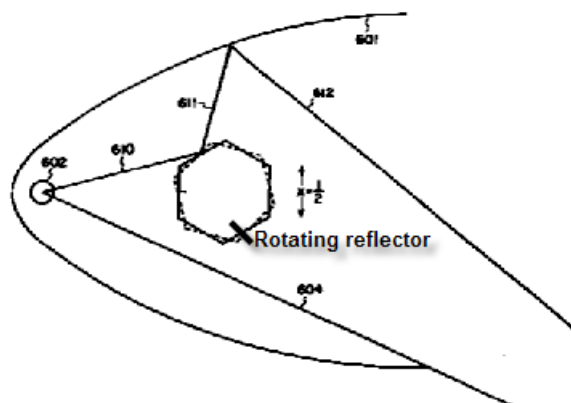
F21S 10/06

flashing, e.g. with rotating reflector or light source {(signalling lighting devices mounted on vehicles [B60Q 1/26](#))}

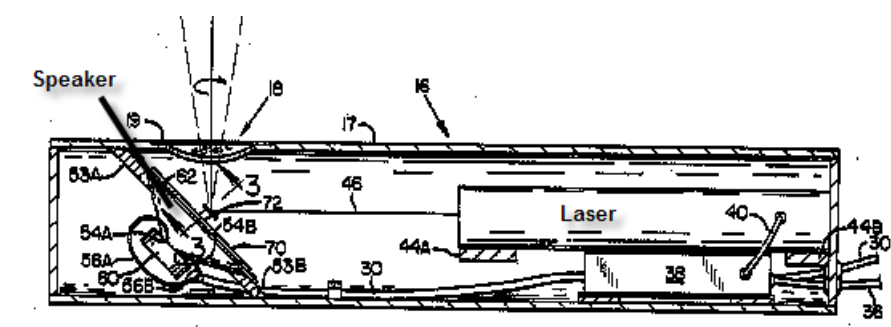
Definition statement

This subgroup covers:

Example: US5954416 - Rotating reflector flashlight



Example: US4887197 - Apparatus for generating light patterns responsive to audio frequency input signals



Informative references

Attention is drawn to the following places, which may be of interest for search:

Changing the characteristics or distribution of the light emitted by movement of light sources	F21V 14/02 F21V 14/04
Changing the characteristics or distribution of the light emitted by movement of reflectors	F21V 14/04

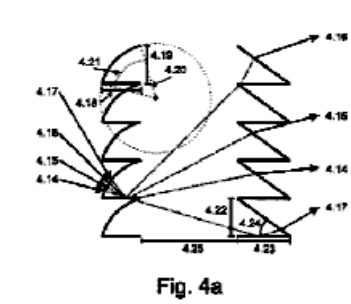
F21S 11/00

Non-electric lighting devices or systems using daylight {(roofs with sky-light opening [E04D 13/03](#); sun blinds for windows with means for redirecting light onto ceiling of a room [E06B 9/00](#); hybrid lighting devices combining artificial and natural light [F21S 19/00](#); solar heat collectors [F24J 2/00](#); solar cells or solar cell modules [H01L 31/00](#))}

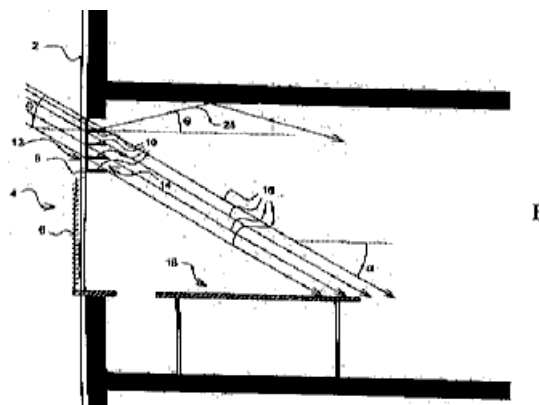
Definition statement

This group covers:

Example: DE102008055857 - Daylight deflecting device for use in double glass window for illuminating of building room



Example: DE10324852 - Daylight illumination system



Informative references

Attention is drawn to the following places, which may be of interest for search:

Building arrangements in general, building details	E04
Sky-lights; Domes; Ventilating sky-light	E04D 13/03
Windows or the like	E06B
Light guides specially adapted for lighting devices or systems	G02B 6/0001

F21S 13/00

Non-electric lighting devices or systems employing a point-like light source (candle holders [F21V 35/00](#)); Non-electric lighting devices or systems employing a light source of unspecified shape

Informative references

Attention is drawn to the following places, which may be of interest for search:

Candle per se	C11C 5/006 , C11C 5/008
Candle holder	F21V 35/00

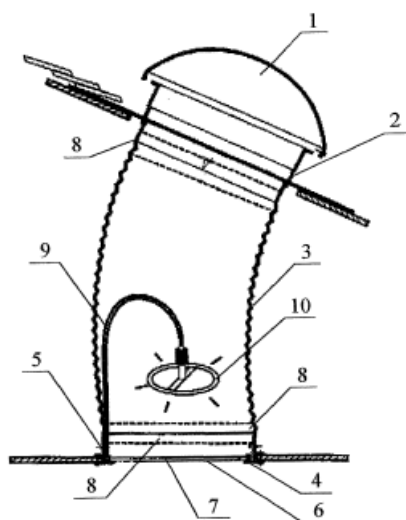
F21S 19/00

Lighting devices or systems employing combinations of electric and non-electric light sources; Replacing or exchanging electric light sources with non-electric light sources or vice-versa

Definition statement

This group covers:

Example: WO0225032



F21S 48/00

{Lighting devices or systems specially adapted for vehicles (arrangements or adaptations for ships or waterborne vessels [B63B 45/00](#))}

Definition statement

This group covers:

This group is not part of the IPC. It replaces the group [F21S 8/10](#)

- Lighting devices adapted to be mounted on the front part of an automotive vehicle characterised by the shape or the kind of light emitter
- Lighting devices adapted to be mounted on the rear part of an automotive vehicle characterised by the shape or the kind of light emitter.

References relevant to classification in this group

This group does not cover:

Cycles	B62J
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Arrangements or adaptations of signalling or lighting devices for ships or waterborne vessels	B63B 45/00
Aircraft signal or lighting devices	B64D 47/02

Informative references

Attention is drawn to the following places, which may be of interest for search:

Arrangements of lighting devices on vehicles in general, the mounting or supporting thereof or circuits therefor	B60Q
Details of lighting devices	F21V
Testing alignment of electric head-lighting or spot-lighting devices or systems for vehicles	G01M 11/06